Canberra
Amiga
Users
SociEty
Inc

NEWSLETTER

October 1991

Aims of the Society

Canberra Amiga Users Society Incorporated (CAUSe) is an independent group (currently with about 300 members) formed for the benefit of people who own, use or are interested in the Commodore Amiga computer.

Benefits

Benefits include a bi-monthly newsletter, monthly meetings, discounts (see over page), bulletin board, Public Domain library, special interest groups and the opportunity to meet and exchange ideas with other users.

Subscriptions

Membership of the Society is available for an annual fee of $20. This fee may be paid, with a filled-in application form, either to the Membership Secretary at any of the monthly meetings or by mail to the Membership Secretary, PO Box 596, Canberra 2601.

Meetings

Meetings are held at 8 pm on the second Thursday of each month in either the Chifley Room or the auditorium at the Canberra Workers' Club in Childers St, Civic. The dates for the next 2 meetings are October 10 and November 14.

The Beginners' Group runs from 7-8 pm prior to each meeting.

Details of upcoming meetings and main topics will be advertised in the Canberra Times "Fridge Door" the week of the meeting.

Bulletin board

The CAUSe bulletin board is online 24 hours and is maintained by our Sysop Peter McNeil and his team. To be a member of the bulletin board, you need to pay $5.00 additional yearly subscription.

The telephone number of the bulletin board is 2551469 and of the Sysop 2545545 (h).

Newsletter Contributions

BECAUSE is produced bi-monthly. Contributions to the newsletter can be submitted to the Editor via the newsletter area of the bulletin board, at the monthly meetings or to The Editor, PO Box 596, Canberra 2601.

Articles, reviews, comments and graphics are always welcome. Where possible, please provide them in Amiga readable format ie a disk file in ASCII, Wordperfect, Scribble!, Transcript or Amiga graphic format. The deadline for contributions to the newsletter is the 15th of the month preceding production.

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Advertising

	First Run	Rerun
Full page	$30	$20
Half page	$25	$15
Quarter page	$20	$10

Copy is to be provided to the Editor either in Amiga graphic file format or as appropriately sized printed copy. First Run prices are applicable if the Editor has to format the advertisement.

Production

The Editors for the newsletter were David Virgo and Mark Trenery. The copy was formatted by the DTP SIG using Professional Page v2 and printed on a Postscript printer by Desktop Utilities.

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CAUSe Committee (1991)

Director	Jeff Wilson 2477330 (h) 6-10pm
Vice Director	Simon Tow 2888362 (h) 6-8pm
Secretary	Lyle Williams 2814038 (h)
Membership Secretary	Berenice Jacobs 2547248 (h) 4-8pm
Treasurer	Terry Sullivan 2548950 (h)
Committee	Chris Townley 2545922 (h) 6-8pm
	Tony Hayman 2961894 (h) 7-10pm
	David Jacobs 2547248 (h) 5-7pm
	Adrian Tritschler 2574794 (h)
	Doug Stone 2551959 (h) 7-9pm
	Loy Winkler 2486545 (h) 4-10pm
	Andrew Boundy 2916971 (h) 7-10pm
	Gordon Owttrim 2972692 (h) 6-8pm
	Mark Trenery 2861358 (h) 7-10pm

Special Interest Groups

Each of the following members is coordinating a Special Interest Group (SIG) in the listed topic. If you are interested in joining one of these groups and getting more out of your Amiga, either contact them direct or indicate your interest at the next monthly meeting:

James Dempsey	2922145	Modula 2
Connie Peisley	2952767	Education
Jeff Wilson	2477330	C CanDo
David Wilson	2918324	Desktop Publishing
Rob Vander Meer	2417113	Video
Christopher Cole	2478590	Hardware
Bernie Weeners Jr.	2416737	Amos

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This Month's Cover

by Robert Reitsma

Image produced with Real 3D running on an Amiga 3000. Final image is 16 colour grey scale at 640x512.

Director's Letter

Well it's some time since I last had the pleasure of writing for our fine magazine and much has happened in the World of Amiga, including the World of Amiga Show in Sydney which I missed for the same reason I've missed the last few meetings.

I've now finished my courses for the Royal Australian Navy and so will be around for a little time to come and hopefully won't miss anymore meetings for a while.

Some of the things expected in the near future have the Amigarites buzzing with anticipation and the certainly not least on this list is the impending release of Workbench version 2.0. My belief is that the wait will be justified with the addition of compugraphic fonts being added into the final release version. As a registered developer of Commodore I've had the advantage of using Version 2.0 or should I say Version 2.04 for some time now and I doubt if I could go back to the old operating system.

Another big release for the people of Commodore is the CDTV which is a real leap into the future for technology and a plus for us the users of Amiga. The real plus for us will be the release of the CD drive which will hook up to our machine and allow us to run all the CDTV discs on, or should I say through our Amigas'. I've seen some of the software running on these machines and it has to be seen to be believed.

A third party recent release is the Colourburst available from MAST. If we're lucky and the time is right we should be able to have the man who designed this and other wonderful products at our October meeting to talk to us. He has agreed to come but at this stage can't confirm the dates with us but we will know two weeks prior to the meeting so watch the papers for this and don't miss it whatever you do.

Mentioning the papers also brings to mind a man in our group who does a lot of behind the scene organising. The person I speak of is our Public Relations man, John Buttle who puts the advertisements in the papers and calms the waves with the external people that the group comes into contact with. John does a wonderful job with very little thanks for all his effort and so I'd like to take this opportunity to thank him publicly.

Another member of our Club worthy of mention is Peter McNeil who has been given our first award of one years free membership. This award is for anyone who gives more of their time and effort towards helping others in the Club then would normally be required, and this is decided by the Club Committee as only one of these will be issued per year. Well done Peter and I only hope this doesn't cause a head swell which could cut off circulation to the brain.

Also about to be released for the Amiga is the Miracle Piano Teaching System. This package which consists of a Keyboard, software and interface is expected in October and as Simon Tow is one of the people with one on order, I expect that we can talk him into providing a demonstration of it for us others who must wait awhile. The best price that I've seen for it at this stage is the one being offered by Rob Wilkins from Carina Computers. If you're interested in this or just want more information then I suggest that you contact Rob at the meetings.

We will now be using a transmitter at

future meetings that will transmit a image from the computer at the front to anybody's TV as long as it has UHF capabilities. You will have this capability if you can pick up any of the Canberra TV stations as they transmit on the UHF band [Ed: Except ABC & TEN]. My main reason for mentioning this is that we need people to bring along TV's to watch in the audience. Committee members are bringing along some TV sets but the onus should not rest with them and so I'd like people to contact me so that we can formulate a list of people willing to bring their TV sets and we don't end up with the situation of all TV's one meeting and none the following one.

Also at this meeting we will revive our lucky door prizes by raffling a $20 voucher from Interlink at the end of the main meeting and prior to the talk.

Interlink now offer what used to be the best ready reckoner on Amiga software and hardware, namely their catalogue in a disk form now for a small production cost of $3. It now sports not only the new format but also reviews and views on games and other related subjects and PD games that you can actually play. Done in the format of a Magazine on a Disk, it offers good value for money.

I'm looking for a volunteer to co-ordinate a music SIG, this would not involve too much time and would only require the person to have an interest in music. Many members of the group have expressed interest in a music SIG but as yet I've not had any volunteers, which is a shame as music on the Amiga has so much to offer. Running a SIG only means your name is the contact point and maybe holding meetings at your place from time to time although as I can testify, this is not always the case as I'm co-ordinator for the C SIG and it meets at Peter McNeil's place as he has the best venue for our type of meeting. Please think about this if your interest lies in music and the Amiga and give me a call if you'd like more details.

There is now a new SIG for the Club, namely the AMOS SIG. This will be co-ordinated by Bernie Weeners Jr who can be contacted on (W)252 5358 or (H)241 6737. One meeting has already taken place, but don't despair as there is plenty of room for new members. AMOS is a new approach to programming and can be regarded as a real and proper programming language now with the release of the AMOS Compiler. Give Bernie a call and a contact number, and even if you can't make the SIG meetings you'll be able to be kept updated on new releases and new utilities on the PD. We hope to start buying PD disks that will belong to the Club and be available for use by the Club.

Anyway, enough of this boring dribble from me and go ahead and enjoy the rest of the magazine.

PS. If you have any suggestions to improve the group or the meetings etc. then please give me a call as I'm always keen to hear from the members who have suggestions to make.

JEFF WILSON.

One Phoenix in a Thousand

Adrian Tritschler

Only the names of the businesses involved have been removed to protect the incompetent. Various facts may have been changed to improve their humour content and/or due to the functioning of my memory.

I have had my '1000 since April '86. Nothing has ever really gone wrong with it, although the case now has a yellowish tinge because the plastic is so old. I first saw the amiga in the Byte article (Aug 85?) while I was a third year penniless EE student, and suffered a severe attack of "I Want". Much groveling to the bank (which bank?) and I had borrowed the requisite $2000. Speaking with the salesman at ..... I had been told that since I was a University student, I could purchase the machine tax free, all that was needed was a letter from someone in authority at the Uni stating that it would be used to further my studies. The day I fronted up to take delivery of the machine I was told (by the same salesman) "You can only get tax exemption if you have all these forms from the tax dept. duly filled out and signed by the head of your course". I said "but you earlier said that ..." and the reply was a flat denial. (I love salesmen) Drastic reorganisation of finances and scraping the lining out of a savings account and I had my $2500, shiny new 512k Amiga 1000.

Over the years it has fared reasonably well, being sat on, dropped, used, and occasionaly even cared for! The mouse is held together with a broken off matchstick and some hot glue, (I was a little overexuberant when cleaning ball and rollers several years ago And snapped off the clip that holds the encoder wheel down!) The keyboard is permanently filthy and dusty, containing equal amounts of carpet fluff, girlfriend's hair and half a glass of dried up orange juice (oops).

The external disk drive is a homemade job of considerable vintage, ugly as sin, but at the time of its construction it was far far cheaper to by drive mechanisms and interface them ourself, parts cost about $330 rather than buying a C= 1010 for $599!

A 1 meg (expandable to 2 meg, autoconfig available RSN) Proton external memory expansion was ordered at some time for ????? $530, three weeks later when it turned up, I rode three quarters of the way across town in pouring rain and was told the price was now $640! I politely informed the gentleman that he had two options 1) sell me the board at the price as ordered 2) be dropped headfirst down the nearby stairwell. I left with a $530 memory board!

At some time, (after several friends had purchased PAL '1000s) I decided that I really should do something about the screen, being an early model, mine was PAL video output, but only a 200 line screen (believe me, those extra 56 lines make one hell of a difference). I contacted the original place of purchase and no one there knew what I was talking about. On to the next shop, "Please mister can you supply me with a new Agnes chip so I can have a full PAL screen with 256 lines instead of the NTSC's 200", this was countered with "What sort of monitor do you have?", confused at the relevance of this I told him it was an early 1084 and he said I needed the new 1084S (which he would sell me) to get the better picture. Giggling hysterically, I left the store, not bothering to ask what weird interaction stereo speakers have with NTSC video circuitry. (Did I mention how much I love salesmen?)

One last chance I thought, ventured to the far end of town to the authorised C= repair place, "please can I have a new Agnes chip so I can get 256 lines on my screen", sure said the man, this is what you need, $40 for this little kit (half a dozen

components and a sheet of instructions). A little confused since I had thought the Agnes was a biggish chip, I questioned him and yes, this was definitely the thing I needed.

That afternoon Ami came apart for this first time, with much trepidation I followed the instructions word for word, reassembled the case, took it apart again and put in the three screws I had left out, reassembled the case, and tried it out. Surprise, surprise, no change to the picture. I rang a friend who had a little more technical knowledge of Amigas and was told I had been sold an upgrade for the composite video output! AAAAARGHH!!!!

Over the next week I rang the business seven times. I first explained what I had bought, the salesman remembered me and said if I had blown up the computer it was my own fault but he would only charge $40 per hour to fix it. I pointed out that as an electronics engineer I could probably fix it myself and that he had not sold me what I had asked for, could I have a new Agnes. He said he'd have to check on their policy for refunds and selling the custom chips and would call back in half an hour, three hours later I rang again and he had gone out. The remainder of the week was spent trying to get in touch with him as he was always out, eventually I gave up. (Ode to the love of my life, the salesman)

A few weeks after this I heard of the Phoenix project, a replacement mother board for the Amiga 1000 with PLCC sockets (square ones) for the newer custom chips as used in the 500 (Commodore's way of getting rid of a million C128 boxes) and the 2000 (Commodore's way of out-uglying a genuine IBM AT) The board was to be fully designed in a week, built in two days by a horde of untrained pygmies, and delivered a fortnight before next monday (maybe I exaggerate a little). The specs looked good even if the production schedule appeared a little optimistic, but I had had no problems with the memory board from them (see above somewhere) so off went my $100 deposit and back came the a receipt with the magic "DEPOSITOR #210". Now came the long wait, ...months pass, occasionaly broken by the arrival in the mail of Phoenix Update #n, (n = 1..9), eventually these became quite apologetic and even offered to refund the deposit on any other purchase, now that 2000's were cheap and 3000's were appearing. I considered this but doggedly I waited, well, I once tried to sell the 1000 but of the two phone calls I received, one was from an italian builder who wanted a "PC compat' compute'" for tax reasons, the other was from someone who carefully took down my address, arranged to come and see the machine, then refused to give me his name and

CAUSe Public Domain Collection

The PD programs in the collection vary from very impressive business, graphics and sound programs through to demonstrations of the Amiga's capabilities, games and utilities.

The following people are PD librarians:

Simon Tow	Fisher	2888 362 (h)
Lawrence Coombs	Aranda	2515 523 (h)
Jeff Wilson	Hackett	2477 330 (h)
Berenice Jacobs	Scullin	2547 248 (h)

You have the choice of buying the disks or swapping them for some unused acceptable NAME brand disk that you own. The copying fee for each disk (except for the FISH catalogue disk) is $1 to cover the librarian's costs.

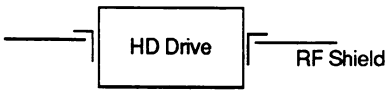
For those who want other than the Fish collection, Berenice Jacobs holds a large collection of alternate public domain. Contact Berenice for more details.

never showed up. (No, I was not burgled shortly afterwards)

March 21 1991, roughly three weeks after Update #9 said that my board would be available, Update #10 arrived and stated that boards in the low hundreds were now shipping. Oh well, more time to save money in. I actually saw a real Phoenix board one sunday, #69 it was, and quite a pretty object indeed. No more than five small jumper wires on the board and very nicely put together, although a few details irked myself and several other electronics bodies present. The board has a nice piece of flowing poetry printed in the silkscreen down the middle, but unfortunately, no chip names! There are also a large number, ten at least, of small programmable array logic (PAL) chips, these are quite power hungry, and to my mind, could have been replaced with one or two eplds or similar logic chips.

A small card arrived in the mail from the second love of my life, Australia Post, on a Monday in may, so bright and early Tuesday morning I rocked on up to the Post Office to collect my cardboard boxes. A medium-pizza sized box contained the Phoenix Board itself, while the Harddrive had a small postpak to itself, for the rest of the week these boxes sat on my couch and I sat on the floor. Sunday May the 12th was the big day, with much reverence the boxes were carried out to the car, carefully placed on the floor so as not to be damaged and I started to leave, a sudden halt followed by me running back inside to get the Amiga 1000 and keyboard and we

Fig. A



were finally on our way to Peter McNeil's to get the installing over with.

Installation was a relatively simple process, I removed a multitude of small screws and placed them all in a suitable receptacle, disconnected the floppy disk drive and removed the old motherboard, while Peter made coffee and played with his cat.

After removing the guts of the amiga, it is advisable to clean it, as over the years a great deal of dust accumulates inside, so we vacuumed the box and then started to put in the harddisk. (Fig. A)

The harddisk provided by Phoenix is a Quantum 52 Meg SCSI drive, the same size as a 3.5 inch floppy drive, but only about 1 inch high, it is a very compact unit! This fits inside the A1000 case between the power supply and the floppy drive. In order to fit the HD into the case, a rectangular hole is cut into the top RF shield, then the HD is suspended from this by a pair of "wings" made from aluminium extrusion. The "wings" are screwed to the drive, and held to the RF shield by double-sided sticky tape.

I put the supplied template onto the RF shield and scribed the edges of the piece to be removed. The documentation suggests cutting the rectangular hole in the RF shield with a nibbling tool, after five minutes work, aching wrists, a blister on the thumb and much swearing for a whole 4mm x 6mm slot cut into the metal, we decided that a more brute force approach was required. Out came the jig-saw and we attempted to deafen each other by cutting the thin tin-plate inside a sheet metal garage. A couple of minutes work with a file removed the sharp edges and we had a RF shield with a large, relatively professional looking, rectangular hole. I cleaned it all up and carefully stuck the drive into the hole, then in went all the cables and tried to put the RF shield back onto the board. It wouldn't go! Removing the shield I noticed that a large plastic post that connects the top half of the case to the bottom half was sitting squarely in the middle of where the drive should go, this was a little strange as I couldn't remember

seeing anything in the instructions that said to cut off the post, so I read them again. A light suddenly dawned, I had put the template on the wrong side of the RF shield and consequently the hole was in the wrong place. While Peter laughed and I tried to blame it on his cat, we removed the drive from the shield, destroying the carefully placed sticky tape. A couple more minutes work with the jig-saw, and the hole was extended to its correct position. Now the hole was too big, and the drive could only be supported by one side, so Peter cut a piece of scrap aluminium to size and it was pop-riveted into place to act as a support (Yes it does all look a little dodgy). The cables all went back into place, the RF shield fitted down onto the board, the floppy disk plugged back in and we were ready for testing!

Power on was good, all the smoke stayed inside (none came out anyway!), and we booted from the supplied floppy disk. A familiar looking workbench appeared and I tried to mount the harddisk, this is a fairly simple, four step process:

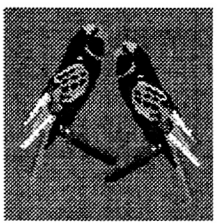
1) Low level format of the drive, the command "SCSI_format 0" does this, 2) mounting the drive, "Mount dh0: from devs:dh0.mount"

3) putting AmigaDOS on the drive "Copy sys: dh0: all"

4) doing magic to make the disk auto-booting "SCSI_auto"

At step 2 I had a minor grumble with Phoenix because the mountlist file that they provide is for the older, 40 Meg drive, not the 52 Meg one provided. A quick bit of editing to change the number of blocks on the drive and it was done.

Now it was time to put it all back together, so off went the power, in went the hundreds of carefully stored screws (which had all been knocked out of their suitable receptacle) and on went the top. That night I started the process of installing my various bits of software from floppies on to the harddisk, it was here that the first real problem occurred, each time I created a new Drawer from the workbench, the amiga would become busy for longer and longer periods, finally after creating seven or so drawers it would GURU. After rebooting, a further six or so new drawers and GURU again. I can only guess that there was something wrong with the AmigaDOS disk provided by Phoenix, since I reformatted DH0: with an original C= Workbench, the problem has gone away and the machine has performed flawlessly.



the

aquarium

These pictures were created by Hugh Webster using a variety of techniques. 'Bird', 'Sailing', and 'Aquarium' were derived from the Ministek picture range, plotted on a one-to-one basis from a Ministek diagram.

Desktop Publishing News & Views

by Frank Keighley

Scans

The big question about scans is, how big will they be, and will your system resources stand up to it? The largest a scan will be is Pixels x Pixels x Bitplanes / 8 = Bytes. The figure for pixels height and width is Dots per inch (DPI) x Inches. For a 2" x 2" picture:

	100 dpi	200dpi	300dpi
1 bit mono	5000	20000	45000
3 bit colour (8 colours)	15000	60000	135000
8 bit greyscale (256 shades)	40000	160000	360000
24 bit colour (16 million colours)	120000	480000	1080000

For scans using Professional Scanlab with the Sharp JX-300 A4 flatbed scanner, for example, this means that full colour scans 300 dpi require more than the space on an Amiga floppy for anything larger than a business card size. However, the purpose of the scan is often for a screen display. In this case, there is no need for 300 dpi; about 75 to 100 dpi is enough to work with. High contrast, bright images will give the best results in scanning.

Using Art Department Professional in conjunction with Professional Scanlab, adjustments can be made for low light levels in darker areas of the picture, without overexposing lighter areas, by using "Gamma" control. This raises the light intensity in darker areas, leaving it unchanged in lighter ones. Howver, any special image processing involves bureau time, and the most economical scans are the direct, unmanipulated ones. If you have a lot of scanning to do, and are likely to require image processing on a significant number of the scans, The Art Department or Art Department Professional may be worth investing in, because with the plain 24-bit files, you will then have full control over gamma settings and any of the other adjustments that may be needed.

Slides from computer graphics.

For slides, the question is the format. The rule of thumb is, width should be height times one and a half. The picture aspect of most computer generated graphics is not quite the same as for slides. For a full screen width of 640 pixels is used there is a printable slide height of 427 pixels (427 x 1.5 = 640.5).

If the original is not of these proportions, the choices are between accepting some additional black surround on the sides of the slide, or cropping the image. Art Department Professional, which is used with its CI3000 driver to control the Polaroid Digital Film Recorder, has a cropping operator which can do this and can accept x and y offsets so that the cropping selects the right parts of the image. It also has a scaling function, which can be used satisfactorily in some cases.

Still, as the author, you will have maximum control over the resulting slide output if you achieve a picture aspect in your graphic corresponding to the output medium.

As with scanning, high contrast, bright images generally provide good results.

Desktop Utilities

PO Box 3053, Manuka, ACT 2603
Phone: Canberra (06) 239 6658
BBS: 239 6659 Fax: 239 6619

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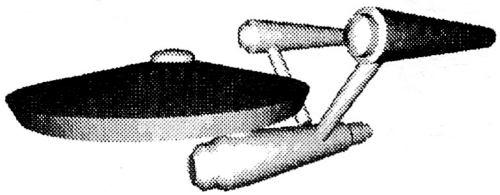
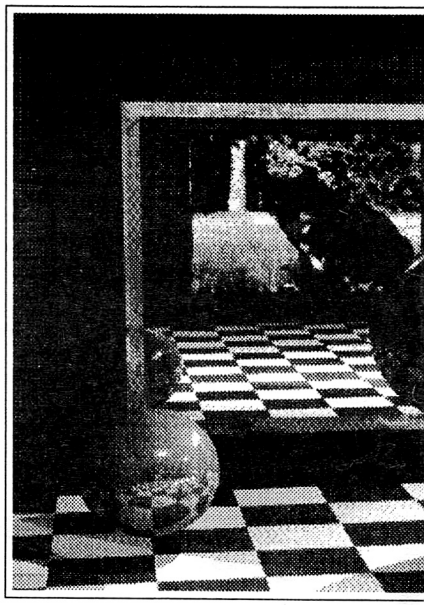
Object-based programming from Inovatronics: point and click

CanDo
Power steering for the Amiga

Desktop Utilities registration includles DTU CanDo User Group membership. The first newsletter will be out in November.

Can you do without it?





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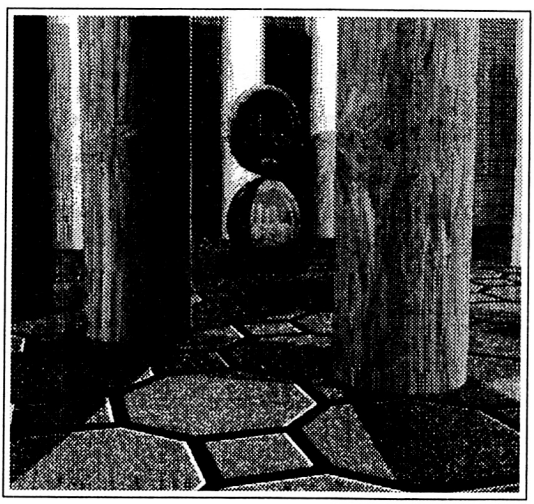

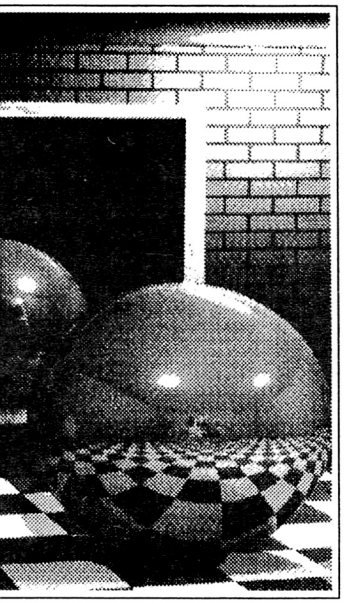

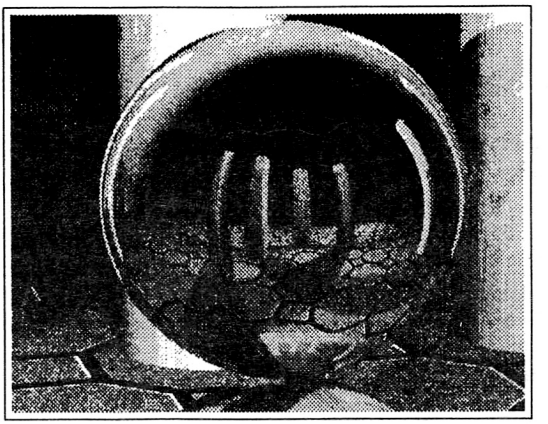

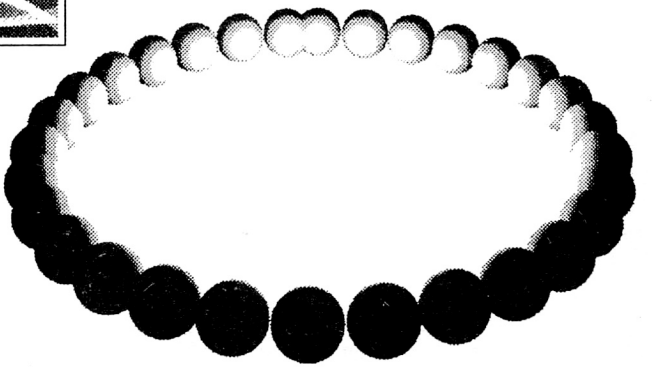

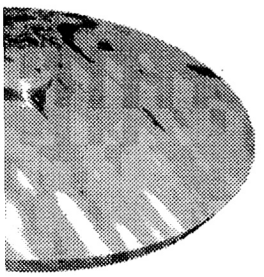

More images by Robert Reitsma using Real 3D. The original images were 16 level grey scale in hi-res, they were gamma corrected and otherwise 'tweeked' using ASDG's The Art Department, image processing software.

EXPERT PRINTING!

Canon BJ-330 Review by Warren Price

It is an exciting experience to be able to use a devise that is at the cutting edge of technology. Recently I was offered such an opportunity when loaned a Canon BJ-330 printer by the local Canon Australia office. The brief introduction given by the dealer was sufficient to get me started and is testimony to the simple operation of this printer.

The hardest part of the whole exercise was finding enough space on my cluttered computer table, to put the almost 600mm long machine. The demo. BJ-330 came with 2 optional cut sheet paper bins that are available for this printer - more on that later. The next step was to plug in the parallel printer cable into the A2500. I may add that a serial interface comes as an optional feature.

Then came the big moment, switch on the 2500 and then the printer. I was greeted with a smoothly orchestrated routine of quiet sighs, buzzes and wheezes as the printer configured itself for a session of printing. So far so good, now for the serious business of actually doing what a printer does best, printing!

First up I went into my preferred wordprocessor "Platinum Scribble!". The result was great! Crisp clear letters that were hard to believe didn't come from a Laser. The first test page was printed using the EpsonQ driver from preferences. Then I tried using Canon's BJ.driver. I expected at least as good if not better result but such was not to be. The output was OK and clean but lacked depth and density.

I must add that according the rep. Canon are working on a better Amiga driver. No one seems to know when it will see the light of day. However, all is not lost as a local Canberra programmer and Amigaphile, Craig Howie is presently working on a driver that will take advantage of the full capabilities of this great machine. Craig in fact gave me a beta version of his soon to be released BJ-300 driver and it is obvious that he almost has it licked. He has some work to do yet so the driver will support italics and a few other features. Craig writes good drivers so expect to hear details soon!

The technical minded may be interested to know that the BJ-3xx series print head mechanism has no moving parts. The Bubble Jet uses a heated membrane to force out the special ink which then dries almost instantly. The process utilises a

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fascinatingly simple principle that I wont bore you with here. Suffice it to say that the head consists of a 1 x 64 dot, superfine Jet nozzle that enables it to print at a maximum 360 x 360 dots-per-inch density. The dot matrix is 18 x 48 in High Speed mode and 36 x 48 in High Quality mode. Twice the resolution of a 24 pin printer. Anyhow enough of that technical mumbo jumbo.

Then I used the same file and sent it to the printer having selected one of the BJ-330 internal fonts with proportional spacing. Wow! is the best adjective to describe this result. Truly superb, print shop or Laser quality if ever I saw it. What is more it all happens quietly and quickly. Several times I thought something had gone wrong, but no, out came the sheet in no time flat. The smoked perspex cover kept me guessing more than once as its difficult to see what is happening below.

We have all heard the saying 'All puff and no power'. Well this machine is 'all power and no puff'. The fact is the 45db noise level of the Bubble Jet makes it quieter than the average office environment. It doesn't matter if it is in HQ 150cps (characters per second) or HS 300cps (that is fast, believe me) the BJ-330 is almost whisper quiet. Sure beats a hood or ear muffs don't you think?

Then I headed into the world of DTP. My favourite here is PageStream. Unfortunately, for reasons known only to Soft Logik (despite many pleas, I am still waiting for my update - no Logik in that, - excuse the pun) the latest version I have is only V1.8. This was a pity as I would have liked to try structured graphics with the BJ-330.

Using the EpsonQ driver which limits the resolution to 360 x 180dpi the results were still very gratifying. The file I chose had a mixture of both text and bitmapped graphics. Admittedly the 25Mhz, 68030 made sure the file went to the printer swiftly but I would hasten to add that the BJ-330 is no slouch in what it does best - remember, printing! Top stuff, in about half the time my Star NX24-10 does it.

Next I tried a NEC P7 driver, the 360 x 360dpi resolution was certainly there but unfortunately it puts extra line feeds between passes. Not a very satisfactory habit. Then I tried the LQ 2500 driver and we hit the jackpot - 360 x 360dpi. However while the result looked terrific this driver over-inks, resulting in slight smudging as each line receives a second pass. Other than this driver induced problem, I had no smearing or bleeding as I have seen occur with inkjet printers using ordinary paper.

What is the solution to overinking etc? - A PageStream driver written specifically for the BJ-3xx series. The printer is certainly capable of great output, it just needs a suitable driver to take advantage of what it has up its sleeve. I hear that a BJ-10e driver is included in PageStream V2.1. It may work with the BJ-330 but its inclusion in V2.1 would seem to indicate that other BJ drivers are on the way.

The BJ-330 has a front mounted control panel for both paper handling functions and choosing typeface and pitch. I must say that the panel layout is both logical, and simple to use, as I didn't have to refer to the manual once (I hate manuals). This alone is quite an improvement over some machines. The standard internal typefaces include Courier, Prestige, and Gothic with pitch options for 10,12,15,17, and 20 characters per inch, plus Proportional Spacing. Provision has also been made for optional font cards to be plugged in and selected from the control panel.

I mustn't conclude without reference to the BJ's paper handling, as this aspect has, I believe, a lot to do with the overall efficiency rating of a printer. Nobody enjoys paper warfare! Canon certainly got this department right as it is possible to have the BJ-3xx series printers handle paper from 4 different sources and be almost 'Untouched by human hands'. From the initial set up, to hundreds of pages down the track, and changing from one paper source to another it all happened at the touch of a button. You can use the built-in tractor feed, either of 2 optional cut sheet feeder bins, or load single sheets/envelopes manually through a slot in the front. Very versitile indeed, not to mention the ability of the BJ-330 to print A3 landscape. Really great.

I can see a very happy and productive relationship developing between the Amiga and the BJ series of Canon printers. If you are looking for Laser quality output without high quantity dollars, this will be a hard to beat combination. To adapt a line from the Canon brochure "Teach an Amiga to Squirt and you will have near laser quality for a fraction of the price". That is what I call - EXPERT PRINTING - (excuse another pun).

P.S. The result of this experience is predictable, I have ordered a Bubble Jet - it sold itself.

AMOS SIG's FIRST MEETING!

The AMOS SIG had its first meeting on Tuesday the 24th of September starting at 8pm. Many more people than expected turned up creating quite a little crowd at Bernie's place. Although no concrete plans were made as to the future of the SIG, it was plain to see that there were definite evidence that there is a large interest in AMOS. I've since spoke to other people who attended the SIG and they agree that it would be a good idea to meet somewhere else, such as the Meeting rooms at the Workers Club. This would allow people to get eats and drinks as they desired. The only barrier to this might be the cost, but I regard this as trivial being only $8 per night which I'm sure could be raised by everyone throwing in a small amount each. If anyone else has any ideas regards where the SIG could meet, then please give Bernie a call so that he can pursue it.

Looking into the future, things look good with the group deciding to buy and keep its own AMOS PD collection which others may get copies of. Also there will be a list of people available to members of the SIG that allows them to have ready contact with other people using the same product.

If you weren't at the first SIG meeting, and your interested in AMOS, give Bernie a call and get your name on the list. You'll find his name in the front of the magazine.

A Brief Explanation of ANSI

ANSI compatibility has been a hot topic in the C programming world for quite some time now. Everyone is talking about it, but not everyone seems to know what it all means. Hopefully, the following discussion will answer any questions that you may have.

History

ANSI stands for the American National Standards Institute. A subcommittee under this body, the X3J11 Technical Committee on the C Programming Language, was responsible for the development of the ANSI standard for C. Work on the standard began in the summer of 1983, and the final document was approved by ANSI on December 14, 1989. According to Oliver Bradley, ANSI C committee member and Director of C Compiler Development at SAS Institute, the ANSI C Standard is "a treaty between the programmer and the compiler writer. It tells the programmer what he or she can expect from the compiler and library, and it tells the compiler and library writers what they have to do and what they don't have to do."

The motivating need behind the development of this standard was to allow a programmer to develop a C application once, regardless of the number of machines on which the program had to run. Too many people were spending too much money developing an application for machine A, and then having to spend the same amount of money developing the same application for machines B and C and D. This is not a productive way to spend development time. It became clear that if programmers were to have more time to spend on actually making the applications better, all the different machines should agree on how a C application should be written. And so the ANSI Standard for C programming was born.

Why is ANSI C good for you?

What ANSI means to you is that if you spend a year developing the most wonderful program in the whole world and if you only write strict ANSI code, you can take that program to a UNIX box or an IBM PC or a mainframe and, if an ANSI compiler is available on that machine, compile and execute it the first time you try. No fuss, no worry, no bother. Now, if you notice there is an important "if" in the previous sentence. "If you only write strict ANSI code" has many implications that aren't immediately apparent. On the plus side, if you know the ANSI C libraries, header files, and syntax, you will know ANSI C on any machine that supports it. For example, if you suddenly find yourself forced to program on a SPARCstation 1, you will know that at least the ANSI C compiler can be relied upon to insulate you from most of the unfamiliar quirks that machine may have.

What isn't covered by ANSI C?

Since the ANSI standard specifies a syntax that must be portable across every platform available, it is not designed to take advantage of the special features of any particular machine. This is unfortunate for you if you are planning to write the game of the century on the Amiga in ANSI C and simultaneously release it on every platform known to man. All of the graphics capabilities that make the Amiga the niftiest machine around are not ANSI because they aren't supportable on all other pieces of hardware. So, if you are planning to write an application you want to port to another platform, follow these guidelines:

(Continued P 19)

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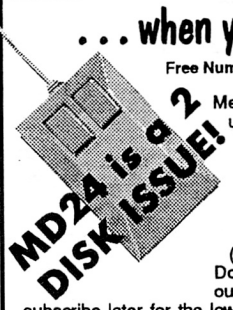

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- Write as much of it as possible in ANSI C
- Separate non-ANSI code, such as Intuition code, graphics routines, and other AmigaDOS specific code into separate modules to make it as easy as possible to re-write on the new platform
- Learn to use the #define, #if, and #ifdef statements to allow or prevent the compilation of code for specific machines. #ifdef AMIGA is a common sight in code which will compile and run on several machines.

There are other issues that the ANSI standard did not, and in some cases, could not address. Character sets (ASCII versus EBCDIC), byte ordering, and file names and directory structures are all very much machine dependent. The ANSI C Standard has done an excellent job in guaranteeing that, on the surface, C coding will be the same across platforms, but it in no way removes the ultimate responsibility of the programmer to understand the hardware and operating system of the machine on which he or she is programming.

Will my old code run under ANSI C?

The ANSI committee was very careful to preserve existing code. Almost all old-style (K&R) code will compile and execute correctly on an ANSI compiler. For example, while function prototypes are available (and very valuable), old-style function declarations and calls without prototypes continue to work. When it was necessary to "break" old code, the committee strongly preferred the diagnostic route -- an ANSI compiler is obliged to diagnose something that won't work. In a very few cases, "quiet changes" were introduced. For example, longs in switch and case statements now work, rather than silently truncating to int. Of course, not many programs will rely on the silent truncation. If you have written relatively straightforward code that doesn't rely heavily on the old-style subtleties in your compiler, you shouldn't have too many problems.

A Short Word About the SAS/C Development System

ANSI C is not that different from what you are used to. If you are currently using a 5.x version of the SAS/C Development System (formerly the Lattice C Compiler), you could be using the ANSI syntax already. The 5.x versions are almost fully ANSI compliant except for the libraries, which were developed well before the ANSI C standard was written. To increase our ANSI compliance, SAS Institute is releasing a new set of fully ANSI compatible libraries in October of this year as an add-on to all versions 5.x of our product. These new libraries are not a required upgrade. Rather, they are being released to accommodate those customers who want to write ANSI compliant code. Version 6.0, due out sometime next year, will contain only the ANSI compliant libraries.

To further your understanding of ANSI C, there are several ANSI C reference books around to answer any questions you might have. If you own our compiler, you can also experiment with the -ca option which forces the compiler to flag non-ANSI compliant code in your source. ANSI C is the wave of the future ... take a look!

SAS/C is a registered trademark of SAS Institute, Inc. Lattice is a registered trademark of Lattice, Inc.

P.s. To obtain a copy of the survey that accompanies this article contact Berenice Jacobs on 2547248.

AMOS PD Listing

Below is a listing of some european PD Amos Disks, most of these do not require the use of AMOS itself and so make good value on their own. For more details on these disks please call the leader of the AMOS SIG listed elsewhere in this magazine.

(**UT**)-UTILITY DISKS (**AMOS**)-AMOS PROGRAMS (**DEM**)-DEMOS (**AFT**)-ART & FONTS DISKS (**MA**)-MUSIC AMOS (**MG**)-MUSIC GENERAL

APD1: GAMES MUSIC CREATOR (UT)
APD2: TREASURE SEARCH (Note same as disk 514!)
APD3: FONTS DISK #1 (AFT)
APD4: FONTS DISK #2 (AFT)
APD5: FONTS DISK #3 (AFT)
APD6: STOS TO AMOS (UT)
APD7: VIRUSX 4.0 (UT)
APD8: MUSIC & SAMPLES #1 (MA)
APD9: AMOS BIG DEMO V4 (DEM)
APD10-13: SAMPLES 2-5 (MG)
APD14-16: IFF PICTURES 1-3 (AFT)
APD17: INSTRUMENTS (ST-01) (MG)
APD18: INSTRUMENTS (ST-02) (MG)
APD19: MICROMANS MUSIC SENSITIVE BALLS DEMO (DEM)
APD20: ARC ANGEL DEMO 1 (DEM)
APD21: WORD SQUARE SOLVER + GAMES (AMOS) Word squares made easy with this program. Just type in the letters and let the computer find the words for you. Also on this disk are Demolition Mission, Grub Grabber, Space Invaders, Pacman & Submarine games!
APD22: FUN SCHOOL III DEMO (DEM)
APD23-30: ST MODULES 1-8 (MG)
APD31: SCREEN DESIGNER (UT)
APD32: AMOS PROGRAMS (AMOS)
APD33: PINK GOES APE (DEM)
APD34: LUKE MILLER'S MUSIC #1 (MA)
APD35: ARCHIVIST (UT)
APD36: AMOS UPDATE V1.21 (UT)
APD37: ARC ANGEL DEMO 3 (DEM)
APD38: IFF FONTS DISK (AFT)
APD39-50: MUSIC 2-13 (MA)
APD51: WEIRD SCIENCE DEMO (DEM) slideshow
APD52: F.R.U. or FORMS REALLY UNLIMITED (UT)
APD53: CUROS & STAVROS MEGA DEMO II (DEM)
APD54: AMOS PROGRAMS (AMOS)
APD55-58: SAMPLES 6-9 (MG)
APD59: QUIZ GAME (AMOS)
APD60: HOCKEY PISTA DEMO (DEM)
APD61: LUKE MILLER'S MUSIC #2 (MA)
APD62: ARCADIA (AMOS) excellent breakout game!
APD63: HACK MAGIC DEMO CREATOR (UT)
APD64: ART PROGRAM + OTHER AMOS PROGRAMS (UT)
APD65: AMOS PROGRAMS (AMOS)
APD66-75: MUSIC 14-23 (MA)
APD76: AMOS UTILITY DISK #1

(UT) Rainbow Warrior!
APD77: AMOS PROGRAMS (AMOS)
APD78: IFF PICTURES #4 (AFT)
APD79: INSTRUMENTS (ST-03) (MG)
APD80: INSTRUMENTS (ST-04) (MG)
APD81: JUKEBOX DEMO DISK 1 (DEM)
APD82: JUKEBOX DEMO DISK 2 (DEM)
APD83: AMOS PAINT (UT) Nice paint package 2-64 colours, best with 1mg!
APD84: LUKE MILLER'S MUSIC #3 (MA)
APD85: REVERSI & SNAKES AND LADDERS (AMOS) Great games disk, Reversi is a version of Othello, also a great Snakes & Ladders game.
APD86-95: INSTRUMENTS (ST-05)-(ST-14) (MG)
APD96: PAIR-IT (AMOS)
APD97: DYNAMITE DICK + OTHER PROGRAMS (AMOS) Nice treasure collecting game + more!
APD98: MUSIC #24 - Contains a player and ABK music files.
APD99: BENSON DEMO I by Leslie Benzies - the winning demo from Mandarin software's competition. Excellent routines.
APD100: AMOS DEMO II by Peter Hickman - This is the demo that Mandarin were displaying at the Computer Shopper show. Contains some very useful routines.
APD101: AUTO PLAYER by Technical Fred Software - Load in your AMOS music and use this well documented player to listen to it. 1mb.
APD102: CHAINSAW DEATH by Jaron Collis - very unusual two player game with excellent documentation. A futuristic board game which has you actually moving about a maze. 1mb.
APD103: PICK UP A PUZZLE by Len Tucker - jigsaw puzzles to solve with three levels of difficulty. Good graphics and well presented. 1mb.
APD104: PICK UP A PUZZLE DATA DISK - More puzzles for APD103.
APD105: PICTURE IT by M. Wellman - 2 disk game. Put the pictures back together within a time limit. Very hypnotic effects as the pieces float around the screen. Needs APD106. 1mb.

(Continued next issue)

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Paul Martin	10-10 M-Su	2532121	what's happening
Simon Tow	6-7 pm M-F	2888362	hard disks, Digiview
Gary Duncan	6-8 pm M-F	2319801	general C programming
Frank Keighley	6-7 pm M-F	2396658	laser printing, desktop publishing
Peter McNeil	6-8 pm M-F	2545545	bulletin board
Doug Stone	6-9 pm M-Su	2516347	general help
James Dempsey	7-9 pm M-Su	2922145	Modula 2
Robert Vander Meer	6-8 pm M-F	2417113	desktop video
Wayne Rochester	6-10 pm M-F	2479093	assembler, general programming
Fred Pollum	6-8 pm M-Su	2810842	video, digitising
Michael Thong	6-8 pm M-Su	2822323	hardware interfaces
Colin Vance	6-8 pm M-Su	2511087	beginners AmigaDOS
Andrew Boundy	8-10pmM-Th	2916971	Superbase Wordperfect

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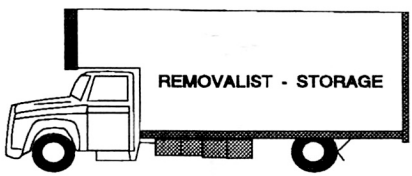

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What's Happening

New Editors

With only 25 minutes left to meet our publishing deadline, your editors for this month just want to remind you of some coming events.

October Meeting

Commodore have been confirmed to demonstrate new products including Commodore Dynamic Total Vision (CDTV).

November Meeting

Rumours of a demonstration of the M.A.S.T. COLORBURST system. Should be interesting. The designer of Colorburst himself, Gray Raynor will be presenting this demonstration.

We had a good response to our request for material for this Newsletter. You will notice we have tried to add a few graphics to spruce things up a bit. Hope it works.

We should have renamed this the BUMPER AMOS ISSUE! thanks to the material we received from Jeff Wilson. Thanks for the contributions Jeff!

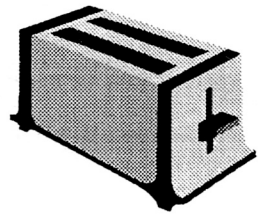
If there are any additions or alterations to the Help column contact list please contact the editors.

Any contributons be it graphics, articles, or product reviews (what about a letter to the editor/committee??) would be most welcomed.

AMIGA

Video SIG

Rob Vander Meer, the leader of the SIG, will bring the group's Digiview equipment to each meeting where it will be available for use by members under expert guidance. This SIG's latest project is a graphic demonstration created for video playback of the Worker's Club facilities and benefits of membership. If you're interested contact the SIG co-ordinator.



Hardware SIG

Many members have indicated interest in learning more about the internals of the Amiga . Contact our new co-ordinator Christopher Cole on 247-8590 ah.

Beginners' SIG

For the October meeting, the Beginners' group will be an intermediate meeting. The topic of harddrives will be continued.